

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013473**Date Inspected:** 21-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1600**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Trial Assembly, Outside yard**Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Christopher D'souza was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China. QA Inspector observed and/or found the following:

ABF Inspection Witness Request number 04192010 – 2

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of OBG components previously accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3 and Detection of Transverse Planar Discontinuities with Significant Flaw Height Dimension Procedure. The QA Inspector observed no rejectable indications at the time of testing. Weld identification numbers were

OBW7 – 008, 009 (7BW – 7CW Side plate CB side)

This QA Inspector performed conventional UT (Ultrasonic Testing) in conjunction with ABF UT department for detection of planar transverse indication.

See Caltrans Ultrasonic Transverse Indication Evaluation sheet dated April 21st, 2010 for further information on inspection.

Outside Segments – Initial UT

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This QA Inspector performed Ultrasonic Testing (UT) on approximately 100% of OBG component previously accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3 and Detection of Transverse Planar Discontinuities with Significant Flaw Height Dimension Procedure. The QA Inspector observed rejectable indications at the time of testing. Weld identification numbers were

CA075 – 004 – (10BE Edge plate to Deck plate weld CB side)

This QA Inspector performed conventional UT (Ultrasonic Testing) in conjunction with ABF UT department for detection of planar transverse indication.

See Caltrans Ultrasonic Transverse Indication Evaluation sheet dated April 21st, 2010 for further information on inspection.

9EE – After Repair 2

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of OBG component previously accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3 and Detection of Transverse Planar Discontinuities with Significant Flaw Height Dimension Procedure. The QA Inspector observed rejectable indications at the time of testing. Weld identification numbers were

CA070 – 004 (E2)

CA069 – 004 (E5)

This QA Inspector performed conventional UT (Ultrasonic Testing) in conjunction with ABF UT department for detection of planar transverse indication.

See Caltrans Ultrasonic Transverse Indication Evaluation sheet dated April 21st, 2010 for further information on inspection.

Trial Assembly

NDT Observation

ZPMC performing UT on 7DE – 7EE transverse splice – Deck plate, bottom plate, side plate (CB side)

ABF performing MT on 7BW – 7CW Bottom plate T-stiffeners splice

This QA Inspector observed ZPMC welding personals identified as 045246 performing Shielded Metal Arc welding (SMAW) on 7BW-pp50 box diaphragm to longitudinal diaphragm to repair error in weld size, weld number identified as SEG 35B-023 and SEG 035B-22 . ZPMC QC is identified as Zeng Qiang. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-2G (2F)-FCM-Repair 1 and B-WR11394

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This QA Inspector was involved in PAUT (Phased Array Ultrasonic Testing) training for detection of cracked tacks in Deck Panels as per the following procedure “UT 04-0120F4 PJP Rib Weld Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds”

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Dsouza,Christopher	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
